

**DECLARATION FOR PATENT APPLICATION**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**BROADBAND SPECTROSCOPIC ROTATING COMPENSATOR ELLIPSOMETER**

the specification of which (check one) ☐ is attached hereto or ☒ was filed on July 24, 1996 as Application No. 08/685,606 and was amended on        (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

Priority Claimed  
Yes No

Number Country Day/Month/Year Filed

Number Country Day/Month/Year Filed

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) below.

Application Number Filing Date

Application Number Filing Date

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Application Number Filing Date Status: Patented, Pending, Abandoned

Application Number Filing Date Status: Patented, Pending, Abandoned

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment both, under 18 U.S.C. § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first inventor David E. Aspnes

Inventor's signature \_\_\_\_\_

Date \_\_\_\_\_

Residence 2517 Olive Chapel Road, Apex, NC 27502

Citizenship U.S.A.

Post Office Address 2517 Olive Chapel Road, Apex, NC 27502

Full name of second joint inventor, Jon Opsal

Inventor's signature \_\_\_\_\_

Date Sept. 12, 1996

Residence 2295 Norwood Road, Livermore, CA 94550

Citizenship U.S.A.

Post Office Address 2295 Norwood Road, Livermore, CA 94550

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
APPLICATION FOR UNITED STATES PATENT

In re Patent No. 5,877,859	)	Group Art Unit: 2505
Issued: March 2, 1999	)	POWER OF ATTORNEY BY ASSIGNEE
Inventors: David E. Aspnes et al.	)	
Appln. No. 08/685,606	)	
Filed: July 24, 1996	)	
For: BROADBAND SPECTROSCOPIC ROTATING COMPENSATOR ELLIPSOMETER	)	

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

THERMA-WAVE, INC., assignee of the entire right title and interest in the above-identified application by assignment dated October 24, 1996 and September 12, 1996, which assignment was recorded in the Patent and Trademark Office on November 6, 1996, at Reel 8211, frame 274, hereby appoints the members of the firm of LIMBACH & LIMBACH L.L.P., a firm composed of:

Karl A. Limbach	18,689	Mark A. Dalla Valle	34,147	Kyla L. Harriel	41,816
George C. Limbach	19,305	Charles P. Sammut	28,901	Mayumi Maeda	40,075
John K. Uilkema	20,282	Mark C. Pickering	36,239	Kent J. Tobin	39,496
Neil A. Smith	25,441	Patricia Coleman James	37,155	Michael R. Ward	38,651
Veronica C. Devitt	29,375	Kathleen A. Frost	37,326	Roger S. Sampson	44,314
Ronald L. Yin	27,607	Alan S. Hodes	38,185	Tina A. Chen	P-44,606
Gerald T. Sekimura	30,103	Alan A. Limbach	39,749	Charles L. Hamilton	42,624
Michael A. Stallman	29,444	Douglas C. Limbach	35,249	Andrew V. Smith	43,132
Philip A. Girard	28,848	Brian J. Keating	39,520	Heath W. Høglund	41,076
Michael J. Pollock	29,098	Seong-Kun Oh*		William G. Goldman	42,590
Stephen M. Everett	30,050	Cameron A. King	41,897	J. Thomas McCarthy	22,420
Alfred A. Equitz	30,922			Joel G. Ackerman	24,307

\* Recognition under 37 CFR 10.91b)

as its attorneys with full power of substitution to prosecute this application and to transact all business in the Patent and Trademark Office in connection therewith.

Please direct all correspondence regarding this application to the following:

LIMBACH & LIMBACH L.L.P.  
Attn: Alan A. Limbach  
2001 Ferry Building  
San Francisco, CA 94111

Telephone: (415) 433-4150  
Facsimile: (415) 433-8716

Dated: JULY 7, 1999

THERMA-WAVE, INC.

By:   
Name: Allan Rosencwaig  
Title: Chief Executive Officer



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

JANUARY 06, 1997

LIMBACH & LIMBACH L.L.P.  
ALAN A. LIMBACH  
2001 FERRY BUILDING  
SAN FRANCISCO, CA 94111

PTAS

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JAN 16 1997

LIMBACH & LIMBACH



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UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, NORTH TOWER BUILDING, SUITE 10C35, WASHINGTON, D.C. 20231

RECORDATION DATE: 11/06/1996

REEL/FRAME: 8211/0274

NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ASPNES, DAVID E.

DOC DATE: 10/24/1996

ASSIGNOR:

OPSAL, JON

DOC DATE: 09/12/1996

ASSIGNEE:

THERMA-WAVE, INC.  
1250 RELIANCE WAY  
FREMONT, CALIFORNIA 94539

SERIAL NUMBER: 08685606

FILING DATE: 07/24/1996

PATENT NUMBER:

ISSUE DATE:

SEDLEY PYNE, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



NOV 06 1996

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To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

David E. Aspnes and Jon Opsal

## Additional name(s) of conveying party(ies) attached?

☐ Yes☒ No

## 3. Nature of Conveyance:

☒

Assignment

☐

Merger

☐

Security Agreement

☐

Change of Name

☐

Other

Execution Date: October 24, 1996 and September 12, 1996

## 2. Name and address of receiving party(ies):

Name: THERMA-WAVE, INC.

Internal Address: 1250 Reliance Way

Street Address: 1250 Reliance Way

City, State and Zip: Fremont, CA 94539

## Additional Name(s) &amp; address(es) attached?

☐ Yes☒ No

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)  
08/685,606

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Alan A. Limbach

Internal Address: Limbach & Limbach L.L.P.  
Street Address: 2001 Ferry Building  
City, State, ZIP: San Francisco, California 94111  
Telephone: (415) 433-4150  
Facsimile: (415) 433-8716

Attorney Docket No. TWI-5400

## 6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41):.....\$ 40.00

☒

Enclosed

☒Charge any deficiencies in the enclosed fee to  
Deposit Account No. 12-1420☐

Authorized to be charged to deposit account

8. Deposit account number: 12-1420

DO NOT USE THIS SPACE

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Michael A. Stallman (Reg. No. 29,444)

Name of Person Signing

Signature

10/28/96

Date

Total number of pages including cover sheet, attachments and document: 3

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Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time for reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of Information Systems, PK2-1000C, Washington, D.C. 20213, and to the Office of Management and Budget, Paperwork Reduction Project, (0651-0011), Washington, D.C. 20503

ASSIGNMENT

WHEREAS, WE, David E. Aspnes and Jon Opsal hereinafter referred to as "ASSIGNORS", have invented certain new and useful improvements as described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: BROADBAND SPECTROSCOPIC ROTATING COMPENSATOR ELLIPSOMETER

Application (Declaration/Oath) Execution Date: Sept. 12, 1996 & Oct. 24, 1996

Filing Date: July 24, 1996, Attorney Docket No. TWI-5400, Application No.: 08/685,606

WHEREAS, THERMA-WAVE, a corporation of the State of Delaware, 1250 Reliance Way, Fremont, CA 94539 hereinafter referred to as "ASSIGNEE", is desirous of acquiring the entire right, title and interest in the said invention and application and in any Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for One Dollar (\$1.00) and other good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the said Assignee, and Assignee's successors and assigns, all right, title and interest in and to the said invention, said application for United States Letters Patent, and any Letters Patent which may hereafter be granted on the same in the United States and all countries throughout the world including any divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, prolongations or extensions thereof, said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignors had this assignment and transfer not been made, to the full end and term of any such Letters Patent.

Assignors further agree that they will, without charge to said Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement in any and all countries, and to vest title thereto in said Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignor has hereunto signed his/her name to this assignment on the date indicated below.

Date: 24 Oct 1996

David E. Aspnes

David E. Aspnes

State of North Carolina

County of Wake

On 10-24-96 before me, Joann B. Mitchell, personally appeared David E. Aspnes personally known to me or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Joann B. Mitchell  
Signature of Notary



My Commission Expires 7/30/2000

IN TESTIMONY WHEREOF, Assignor has hereunto signed his/her name to this assignment on the date indicated below.

Date: Sept 12, 1996

Jon Opsal  
Jon Opsal

State of California

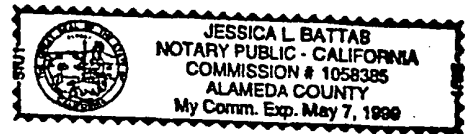
County of Alameda

On Sept 12, 1996 before me, Jessica L. Battas, Notary Public, personally appeared Jon Opsal personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Jessica L. Battas  
Signature of Notary

SEAL



**DECLARATION FOR PATENT APPLICATION**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

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Prior Foreign Application(s)

Priority Claimed  
Yes      No

Number	Country	Day/Month/Year Filed	Yes	No
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Application Number	Filing Date

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Full name of first inventor David E. Aspnes

Inventor's signature David E. Aspnes Date 24 Oct '96

Residence 2517 Olive Chapel Road, Apex, NC 27502

Citizenship U.S.A.

Post Office Address 2517 Olive Chapel Road, Apex, NC 27502

Full name of second joint inventor, Jon Opsal

Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_

Residence 2295 Norwood Road, Livermore, CA 94550

Citizenship U.S.A.

Post Office Address 2295 Norwood Road, Livermore, CA 94550